

### In the Claims

1. (previously amended) An interface forming method comprising:  
forming a first layer comprising a first metal;  
chemisorbing on the first layer an interface layer comprising at least one monolayer of the first metal intermixed with a second metal different from the first metal; and  
forming a second layer comprising the second metal on the interface layer.
2. (previously amended) The method of claim 1 wherein the first layer does not substantially comprise the second metal.
3. (previously amended) The method of claim 2 wherein the second layer does not substantially comprise the first metal.
4. (previously amended) The method of claim 1 wherein the second layer does not substantially comprise the first metal.
5. (original) The method of claim 1 wherein the first layer is conductive and the second layer is insulative.
6. (previously amended) The method of claim 1 wherein the first layer comprises a first metal other than Ta and the second layer comprises Ta<sub>2</sub>O<sub>5</sub>.
7. (previously amended) The method of claim 6 wherein the first metal comprises Pt.

8. (previously amended) An interface forming method comprising forming an electronic device interface layer between and in contact with a first layer comprising a first metal and a second layer comprising a second metal different from the first metal, the interface layer being formed separately from forming the first and second layers, comprising the first and second metals, and not substantially comprising material from the first or second layers as separately formed.

9. (previously amended) The method of claim 8 wherein the first layer does not substantially comprise the second metal.

10. (previously amended) The method of claim 9 wherein the second layer does not substantially comprise the first metal.

11. (previously amended) The method of claim 8 wherein the second layer does not substantially comprise the first metal.

12. (previously amended) The method of claim 8 wherein the interface layer comprises at least one monolayer of intermixed first and second metals chemisorbed on the first layer.

13. (previously amended) An interface forming method comprising:  
forming a first electronic device layer comprising a first metal;  
chemisorbing a first portion of at least one monolayer over the first layer, the first portion comprising the first metal;  
chemisorbing a second portion of the at least one monolayer over the first layer, the second portion comprising a second metal different from the first metal and the first and second portions of the at least one monolayer being comprised by an interface layer; and  
forming a second electronic device layer comprising the second metal on the interface layer.

14. (previously amended) The method of claim 13 wherein the first layer does not substantially comprise the second metal.

15. (previously amended) The method of claim 14 wherein the second layer does not substantially comprise the first metal.

16. (previously amended) The method of claim 13 wherein the second layer does not substantially comprise the first metal.

17. (original) The method of claim 13 wherein the first portion of the at least one monolayer is chemisorbed on first parts of the first layer and the second portion of the at least one monolayer is chemisorbed on second parts of the first layer.

18. (previously amended) An interface forming method comprising:  
forming a first electronic device layer comprising a first metal;  
chemisorbing a first unsaturated interface layer comprising the first metal on the first device layer, the first interface layer having a thickness of from about 1 to about 10 monolayers;

chemisorbing a second unsaturated interface layer at least on the first device layer in areas not saturated by the first interface layer, the second interface layer comprising a second metal different from the first metal and having a thickness of from about 1 to about 10 monolayers; and

forming a second electronic device layer comprising the second metal on the first and second interface layers.

19. (previously amended) The method of claim 18 wherein the first layer does not substantially comprise the second metal.

20. (previously amended) The method of claim 19 wherein the second layer does not substantially comprise the first metal.

21. (previously amended) The method of claim 18 wherein the second layer does not substantially comprise the first metal.

22-39 (canceled)

40. (previously added) The method of claim 1 wherein the interface layer comprises at least two monolayers and the chemisorbing comprises providing a composition gradient across a thickness of the interface layer by increasing a composition ratio of the second metal to the first metal as the thickness of the interface layer increases.

41. (previously added) The method of claim 1 wherein the chemisorbing comprises atomic layer depositing.

42. (previously added) The method of claim 1 wherein the first metal is selected from the group consisting of Pt and Ru.

43. (previously added) The method of claim 1 wherein the second metal is selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta.

44. (previously added) The method of claim 1 wherein the first layer consists of Pt or Ru.

45. (previously added) The method of claim 1 wherein the second layer consists of barium strontium titanate, lead zirconate titanate, or Ta<sub>2</sub>O<sub>5</sub>.

46. (previously added) An interface forming method comprising:  
forming a first layer comprising a first chemical element;  
chemisorbing on the first layer an interface layer comprising at least two monolayers, the interface layer comprising the first chemical element intermixed with a second chemical element different from the first chemical element to provide a composition gradient across a thickness of the interface layer; and  
forming a second layer comprising the second chemical element on the interface layer.

47. (previously added) The method of claim 46 wherein the chemisorbing comprises increasing a composition ratio of the second chemical element to the first chemical element as the thickness of the interface layer increases.

48. (previously added) The method of claim 46 wherein an innermost portion of the interface layer proximate the first layer exhibits a first composition ratio of the first to the second chemical element and an outermost portion of the interface layer proximate the second layer exhibits a second composition ratio of the first to the second chemical element, the first ratio being greater than the second ratio.

49. (previously added) The method of claim 46 wherein the first and second chemical elements are metals.


50. (previously added) The method of claim 46 wherein the chemisorbing comprises atomic layer depositing.

51. (currently amended) The method of claim 46 wherein the first metal chemical element is selected from the group consisting of Pt and Ru.

52. (currently amended) The method of claim 46 wherein the second metal chemical element is selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta.

53. (previously added) The method of claim 46 wherein the first layer consists of Pt or Ru.

54. (previously added) The method of claim 46 wherein the second layer consists of BST, PZT, or Ta<sub>2</sub>O<sub>5</sub>.



55. (new) An interface forming method comprising:  
forming a first layer comprising a first metal selected from the group consisting of Pt and Ru;

chemisorbing an interface layer on and in contact with the first layer, the interface layer comprising a plurality of monolayers including at least one intermixed monolayer having the first metal intermixed in such monolayer with a second metal selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta; and

forming a second layer comprising the second metal on and in contact with the interface layer.

56. (new) The method of claim 55 wherein the first layer consists of Pt or Ru.

57. (new) The method of claim 55 wherein the second layer consists of barium strontium titanate, lead zirconate titanate, or  $\text{Ta}_2\text{O}_5$ .

58. (new) The method of claim 55 wherein the chemisorbing comprises providing a composition gradient across a thickness of the interface layer by increasing a composition ratio of the second metal to the first metal as the thickness of the interface layer increases.

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